HPV-free Iowa:
A HPV vaccination toolkit for health care providers in Iowa

You are key in the effort to prevent cancer in Iowa

Funded by a grant from the American Academy of Pediatrics and in partnership with the Iowa Cancer Consortium, we are calling you to action in the fight against human papillomavirus (HPV), a group of viruses that have been linked to multiple types of cancer and other diseases. This call to action is driven by persistently low vaccination rates and the increasing incidence of cancers caused by HPV.

This toolkit provides important resources to those who vaccinate in a multitude of settings, including private practices and community health clinics. We hope it will influence you to make strong recommendations for the HPV vaccination. It includes materials to help you and your staff communicate with patients about the importance of receiving the HPV vaccine and resources to help improve your adolescent immunization rates.

If you have questions, would like assistance in implementing best practices or need additional materials for your office, please e-mail staff@canceriowa.org.

Healthcare providers are the key to HPV cancer prevention: Video
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Icons definitions:
- 📹: Watch this video
- 🌈: Try this when talking with patients, parents or colleagues
- 🔍: Facts or data
- 📖: Read this & decide if it’s useful to you or your clinic
- 📝: Print this for yourself, your clinic, patients, parents or colleagues
**HPV 101**

Nearly 40,000 HPV-associated cancers were diagnosed annually 2008-2012, almost 80% of which were attributed to the HPV types that are covered by the 9-valent vaccine. Cervical cancer incidence rates are highest in Hispanic and African American women.

Oropharyngeal cancer incidence in Iowa is increasing, and is expected to surpass the incidence of cervical cancer nationally as well as in Iowa by 2020.

1,576: Iowans diagnosed with cancer between 2006-2011 likely caused by an HPV infection.*

90%: Percentage of cervical and anal cancers likely caused by HPV**

60%: Percentage of vulvar and penile cancers likely caused by HPV**

**data from Iowa Cancer Registry

**data from Iowa Cancer Registry for the years 1998-2011

**HPV in Iowa**

**HPV-related cancers, new cases by gender, year, and age of diagnosis, Iowa, 1998-2011**

*Age adjusted rates per 100,000 (HPV related cancers)

| Year and age of diagnosis | Males | | | Females | | | |
|---------------------------|-------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                           | Anus  | Oropharynx      | Penis           | Cervix          | Vagina          | Vulva           | Anus            | Oropharynx      |
| 1988-1993                 |       |                 |                 |                 |                 |                 |                 |                 |
| <60 Yrs                   | 0.3 (15) | 1.8 (103)     | 0.3 (19)        | 9.3 (593)       | 0.1 (7)         | 0.8 (48)        | 0.3 (16)        | 0.5 (32)        |
| 60+ yrs                   | 1.0 (14) | 11.4 (164)    | 4.2 (57)        | 15.0 (289)      | 1.9 (39)        | 7.9 (159)       | 3.4 (66)        | 4.3 (82)        |
| 2006-2011                 | 0.6^ (50) | 4.2^ (367)    | 0.2 (19)        | 6.4^ (448)      | 0.2 (13)        | 1.5^ (117)      | 1.3^ (105)      | 0.7 (59)        |
| <60 yrs                   | 2.0 (32) | 16.7^ (274)   | 4.5 (69)        | 7.8^ (154)      | 1.5 (31)        | 8.1 (176)       | 5.2 (105)       | 4.4 (88)        |
| 60+ yrs                   | 91%+ | 72%+           | 63%             | 91%             | 75%             | 69%             | 91%+            | 72%+            |
| Probably caused by HPV®    |       |                 |                 |                 |                 |                 |                 |                 |

*Rates are per 100,000 and age-adjusted to the 2000 US standard population.

**HPV-related cancers are defined as cancers at specific anatomic sites with specific cellular types in which HPV DNA is frequently found. Cases are invasive, microscopically confirmed, squamous cell carcinomas except for cervical cancer where adenocarcinomas are also included.

~Oropharynx subsites include base of tongue, tonsil, lingual and palatine tonsils, oropharynx, pharynx, and Waldeyer ring.

^Rate is significantly different (p<0.05) from corresponding 1988-1993 rate.

+Percent is for males and females combined.

Cervical Cancer Incidence: Iowa, 1999 to 2010

The standardized incidence ratio (SIR) is an indirectly age-adjusted standardized measure of disease risk in the local area for a 4-year period. In the maps above they are relative to the statewide rate for the entire 12-year period. These maps show the SIRs for 2,913 overlapping circular areas. These areas are centered on census block group centroids and contain approximately 150 cases.

Cervical Cancer: Areas of Iowa with Persistently High/Low Rates of Incidence (1999 to 2010)

Persistence maps display long-term disease patterns that are relatively high or low in all time periods. They identify areas for cancer control that are persistently high and potentially more suitable for targeted interventions, public expenditure, or other resource allocations.

The maps are created from 2,913 circular areas centered on Census block group centroids. Each area has approximately 150 expected cases. Areas that are in the upper 25 percent of all areas during a particular time period. They are classified as high with respect to the rest of the state in that time period. If an area was always high (red), it is a persistently high area. If an area was always low (blue), it is a persistently low area.
HPV vaccination recommendation

- Adolescents age 11-12 should receive 2 doses, six to twelve months apart.

  Why 11-12 years of age? Video

- All preteens up to 15 should be given two shots of HPV vaccine, six to twelve months apart.

- Advisory Committee on Immunization Practice (ACIP) also recommends catch-up vaccination for females aged 15 through 26 years and males aged 15 through 21 years not adequately vaccinated previously.

- Vaccination is also recommended through age 26 years for gay, bisexual, and other men who have sex with men, transgender people, and for immunocompromised persons (including those with HIV infection) not adequately vaccinated previously. The recommended 3-dose schedule is 0, 1–2 and 6 months.

- Contraindications: latex allergy, yeast allergy, pregnancy

Risks: Reactions in the arm where the shot was given, fever, headache, syncope.

HPV (Human Papillomavirus) VIS
CDC Recommendations for HPV Vaccine 2-Dose Schedules

Iowa Immunization Registry Data (2015)

Iowa Immunization Registry (IRIS) data includes adolescents 13 - 15 years of age in Iowa.

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Immunization</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPV ≥ 3 Females</td>
<td>26%</td>
</tr>
<tr>
<td>HPV ≥ 3 Males</td>
<td>17%</td>
</tr>
<tr>
<td>HPV ≥ 3 Female/Males</td>
<td>21%</td>
</tr>
<tr>
<td>Tdap ≥ 1</td>
<td>66%</td>
</tr>
<tr>
<td>Meningococcal ≥ 1</td>
<td>52%</td>
</tr>
</tbody>
</table>

Source:  IRIS Data 12/31/2015, 13 – 15 year old adolescents
Importance of Provider Recommendation

Provider recommendation is identified as one of the most important predictors of vaccine uptake, yet there continue to be missed opportunities for vaccination (80% of unvaccinated males and females age 11-17 had at least one visit for preventive care in the last year).

In addition to other factors, missed opportunities are a leading cause of non-vaccination. A missed opportunity is a healthcare encounter where a person does not receive a vaccination for which he or she is eligible. This is often due to a lack of provider recommendation.

Providers can easily address the most common reasons parents won’t initiate HPV vaccination for their children, but simply not recommending it shouldn’t be a reason.

Clinicians underestimate the value the parents place on the HPV vaccine, which is as high as other recommended vaccinations.

Every healthcare visit is an opportunity to review the immunization status and ensure that every teen is protected. In 2013, 77% of Iowa girls unvaccinated against HPV had a missed opportunity for HPV vaccination. Ninety percent of Iowa girls could have started the HPV vaccine series if missed opportunities were eliminated.
Approaches to HPV Vaccine Recommendation

- **Timeliness:** HPV vaccination recommendation between the ages of 11-12, catch-up if child is older
- **Consistency:** Make *routine* recommendations for each and every patient in the age group, not *risk-based* recommendations
- **Strength of Endorsement:** Do not offer the vaccine as *optional* or *something to think about*; prepare to answer questions and provide evidence of safety and effectiveness
- **Urgency:** Recommend and offer the HPV vaccine for patients the same day of their office visit; offer at sick visits if the patient does not utilize preventive care (just as you would with other vaccines)
- **Take advantage of patient reminder tools such as auto-dialers, text messages or EMR patient portals**

Making the recommendation

**How to announce the vaccine:**

- Note child’s age.
- Announce the child is due for 3 vaccines recommended for children this age, placing HPV vaccine in middle of list.
- Say you will vaccinate today.
- Move on with the visit.

“I see here that Michael just turned 11. Because he’s 11, Michael is due for meningitis, HPV, and Tdap vaccines. We’ll give those at the end of the visit.”

“Now that Michael is 12, there are three vaccines we give to kids his age. Today, he’ll get meningitis, HPV, and Tdap vaccines.”

**Examples of effective and ineffective ways to recommend the vaccine:** Reframing HPV vaccination – treating the HPV vaccination: [Video](#) (effective recommendation examples start at 4:00)

**Talking Points to address top concerns about the HPV vaccine:** [here](#)

Additional Information for Healthcare Professionals

Resources for more information about provider recommendation:

- **Free HPV content for websites, apps, and social media:**
  - [https://www.cdc.gov/hpv/hcp/syndication.html](https://www.cdc.gov/hpv/hcp/syndication.html)
- **NCI President’s Cancer Panel Annual Report:**
  - [https://deainfo.nci.nih.gov/advisory/pcp/annualreports/hpv/Part3Goal1.htm#objective1_3](https://deainfo.nci.nih.gov/advisory/pcp/annualreports/hpv/Part3Goal1.htm#objective1_3)
- **Clinician FAQ:** Web section: Human Papillomavirus (HPV) for Clinicians
- **PreteenVaxScene Webinar Series**
- **You Call the Shots – Module Eight - HPV**
Improving HPV Vaccination Rates in Clinics

- American Academy of Pediatrics Provider Champion Toolkit
  - Standing orders
  - Provider prompts
  - Family friendly office hours
  - Assign a immunization champion
  - Provide a strong recommendation
  - Provide rate feedback to providers
  - Educate patients and parents
  - Include all recommended vaccinations at every visit
  - Hold team huddles


Steps for Increasing HPV Vaccination in Practice

Educate all staff in your office of the importance of provider recommendation support and how to have conversations about the HPV vaccine. Get the office on board with vaccination goals. Slides from CDC with notes are available and can be personalized.
Exam Room or Clinic Fliers (including 8-1/2”x11” | 11”x17” | 18”x24”)

HPV Vaccine Print Materials  (English, Spanish, American Indian Alaska Native)

Hold Messages
CDC has created messages that can be used for your practices hold lines. These messages, or messages like them, can be heard by parents who call the office and are placed on hold.

Play these videos in your office: https://www.cdc.gov/ncird/media/resources/index.html#tabs-1070837-3

Talking to Parents
Talking to parents about the HPV vaccine

3 things parents should know about preventing cancer

HPV vaccine is cancer prevention for parent (Spanish): Video

For Parents and Patients

- Fact sheet: More Information About HPV and HPV Vaccine
- Human Papillomavirus (HPV) website for parents and the public

A Parent’s Guide to Preteen and Teen HPV Vaccination
HPV-related cancers and health disparities

Disparities persist in cervical cancer incidence and mortality across race and socioeconomically disadvantaged individuals. Decreased access to care among these populations, in addition to rural communities in Iowa, can result in a lack of screening among the people who are most vulnerable to these cancers.


Consider the changing landscape of Iowa:

<table>
<thead>
<tr>
<th>Race</th>
<th>1990</th>
<th>2000</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>96.6%</td>
<td>93.9%</td>
<td>91.3%</td>
</tr>
<tr>
<td>Black</td>
<td>1.7%</td>
<td>2.1%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Asian</td>
<td>0.9</td>
<td>1.3</td>
<td>1.7</td>
</tr>
<tr>
<td>Native</td>
<td>0.3</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Native Hawaiian and other PI</td>
<td>____</td>
<td>____</td>
<td>0.1</td>
</tr>
<tr>
<td>Other race</td>
<td>0.5</td>
<td>1.3</td>
<td>1.8</td>
</tr>
<tr>
<td>Two or more races</td>
<td>---</td>
<td>1.1</td>
<td>1.8</td>
</tr>
</tbody>
</table>

African American women have the highest cervical cancer mortality rate. A recent study found that the mortality rate for cervical cancer in African American women, once corrected for hysterectomy, is higher than reported, and is comparable to cervical cancer mortality rates in low-income countries.

Cervical Cancer Incidence and Mortality Rates, 2000-2004*

*age-adjusted to the 2000 U.S. standard million population. Represents the number of new cases and deaths per year per 100,000 women.

<table>
<thead>
<tr>
<th>Race/ethnic group</th>
<th>Incidence</th>
<th>Death</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American/Black</td>
<td>11.4</td>
<td>4.9</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>8.0</td>
<td>2.4</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>13.8</td>
<td>3.3</td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>6.6</td>
<td>4.0</td>
</tr>
<tr>
<td>White</td>
<td>8.5</td>
<td>2.3</td>
</tr>
</tbody>
</table>


Resources for information about the HPV Vaccine in other languages:

- SpanishHPV info.pdf
- Spanish HPVinfo for parents.pdf
- Spanish colorful parents of teens handout.pdf
- Vac Info sheet French.pdf
- VIS arabic.pdf
- VIS spanish.pdf

Spanish Cervical Cancer PSA El Recordatorio Preteens and teens need vaccines Run Time: 30 Seconds
Additional Resources:

General HPV
- Centers for Disease Control and Prevention: http://cdc.gov/hpv
- Immunization Action Coalition: www.immunize.org/hpv
- Vaccine Education Center: http://www.chop.edu/centers-programs/vaccine-education-center/questions-answers-about-hpv-and-vaccine
- National Area Health Education Center HPV Immunization project: https://www.nationalahec.org/
- HPV Vaccination Partner Toolkit: https://www.cdc.gov/hpv/partners/index.html
- Middle School Health Toolkit: http://www.middleschoolhealth.org/

HPV-Associated Cancers
- American Cancer Society: www.cancer.org/cancer/cancercauses/othercarcinogens/infectiousagents/hpv/index
- Cervical Cancer Free Coalition: www.cervicalcancerfreeamerica.org
- National Cancer Institute: www.cancer.gov/cancertopics/factsheet/Risk/HPV

Provider & Clinic Resources
- Vaccine Information Statements in Multiple Languages (Immunization Action Coalition): www.immunize.org/vis
- You’re The Key Toolkit: www.cdc.gov/vaccines/youarethekey

Iowa Resources
- Immunization information: https://idph.iowa.gov/immtb/immunization
- Iowa Cancer Consortium: www.canceriowa.org/HPV.aspx